

**2015 Sigma Xi Symposium
Schedule and Oral Paper Abstracts
Gustavus Adolphus College
May 1, 2015**

Session 1: Oral Presentations, Nobel Hall 201	
2:30 pm	Characterization of Cadmium Binding in Metalloprotein II Colleen Caldwell Advisor: Brandy Russell
2:45 pm	Stromatolites of the Shakopee Formation (Ordovician, Minnesota): Ancient Shark Bay or Relict of a Precambrian Past? Tanner Eischen, John Berger Advisor: Julie Bartley
3:00 pm	Co-Expression of Wild-Type and Histidine-Tagged Fumarase in <i>Saccharomyces cerevisiae</i> Colleen Caldwell, Dan Kramer, Morgan Timm, Brianna Titus Advisors: Jeff Dahlseid and Brenda Kelly
3:15 pm	Effectiveness of Remediation Processes in Eutrophic Water Conditions of Crystal Lake, Hennepin County, MN John Berger Advisor: Julie Bartley
3:30 pm	How are mRNAs Targeted for Degradation in Cells? Kiefer L. Haug, Stephanie K. Marquardt, Cole T. Tucker, Luke Sandersfeld, Nick Ulen Advisors: Jeff Dahlseid and Brenda Kelly
3:45 pm	History and Taphonomy of Bison Bones from the Des Moines River Dominic Delmont Advisor: Julie Bartley
4:00 pm	Improvement of Protein Purification for Biochemistry Laboratory through Elongation of the Yeast Fumarase Histidine Tag Haley J. Kubista, Alba Murillo Quiroga Advisors: Jeff Dahlseid and Brenda Kelly
4:15 pm	Measuring Knickpoint Migration in Ravine Z, Seven Mile Creek Park, Nicollet County, MN Michael Dickens Advisor: Laura Triplett

Session 2: Oral Presentations, Nobel Hall 222

2:30 pm	<p>Sodic Amphibole in the Ely Greenstone: What Can We Learn about Ancient Plate Boundaries? Scott Hauer Advisor: Jim Welsh</p>
2:45 pm	<p>Possible Temporal Differences in mRNA of Arabidopsis Thaliana Ribosomal Protein S15 Gene Family Michelle Hulke Advisor: Colleen Jacks</p>
3:00 pm	<p>Image Analysis of Impact Breccias in Victoria Crater on Mars Supports the Presence of Water in Mars' Distant Past Serenity Mahoney Advisor: Julie Bartley</p>
3:15 pm	<p>Characterization of the Binding Between Clock and Per Circadian Proteins Via Mammalian Two-Hybrid Assay Hana Fischer, Stefano Rosati, Monica Johnson Advisor: Karla Marz</p>
3:30 pm	<p>Sediment Analysis in Ravines, Seven Mile Creek Park, Nicollet County, MN Zach Severson Advisor: Julie Bartley</p>
3:45 pm	<p>Deposition of Polymer Films in DC Plasma Nathan Huber Advisor: Charles Niederriter</p>
4:00 pm	<p>Stratigraphy of Gale Crater and Mount Sharp: Implications for Martian Paleoenvironment Zach Van Orsdel Advisor: Julie Bartley</p>
4:15 pm	<p>Assessing Botrychium Populations Based on Belowground Gametophytes and Root Fragments Matthew Gullickson, Reina Nielsen Advisor: Cindy Johnson</p>
4:30 pm	<p>UV-Vis Characterization of Copper(II) and Nickel(II) Metal-Ligand Complexes Guillermo Turcios Anna Huff Advisor: Steve Miller</p>

Sigma Xi New member reception
5:00 Nobel Hall Atrium